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SMITH & MONROE & GRAY ENGINEERS, INC.

PARK PLAZA WEST • SUITE 210  
10700 S.W. BEAVERTON HIGHWAY  
BEAVERTON, OREGON 97005  
503 / 643-8888

CIVIL & STRUCTURAL ENGINEERS

MATERIAL HANDLING & MECHANICAL

FAX 503/643-8610

FACSIMILE TRANSMITTAL

TO: Richard Cooke  
AGCW Portland

FROM: S Rinella, SMG

DATE: August 5, 91 NO. OF PAGES: (8)  
including Cover Sheet

COMMENTS: ① Comments received today  
and my letter response  
to City for your info.  
Drawings have been revised  
and we will forward to  
Seattle today.

② Note \$8.15 "fee must be paid  
in Person", I will work out  
details with Nate up in  
Seattle.

③ copy to: Ken Reme & Nate Fernow  
AGCW Seattle FAX (206) 343-7116  
• Dan Keppen, Klein  
F. # 257-5071 (letter only)  
AGC2H000266

USEPA SF



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## Letter of Transmittal

TO: Klein Consulting Engineers, Inc.  
P.O. Box 808  
1928 Council St.  
Forest Grove OR 97116  
ATTN: Dan Keppen

DATE July 31 1991 JOB NO.  
RE: Ash Grove Cement  
West Proposed Detention Facility  
3801 E. Mavymail Way SW

☐ SHOP DRAWINGS    ☐ PRINTS    ☐ REPRODUCIBLE PLANS    ☐ SPECIFICATIONS  
☐ COPY OF LETTER    ☐ \_\_\_\_\_

<input type="checkbox"/> FOR APPROVAL	<input type="checkbox"/> APPROVED AS SUBMITTED	<input type="checkbox"/> RESUBMIT _____ COPIES FOR APPROVAL
<input type="checkbox"/> FOR YOUR USE	<input type="checkbox"/> APPROVED AS NOTED	<input type="checkbox"/> SUBMIT _____ COPIES FOR DISTRIBUTION
<input type="checkbox"/> AS REQUESTED	<input checked="" type="checkbox"/> RETURNED FOR CORRECTIONS	<input type="checkbox"/> RETURN _____ CORRECTED PRINTS
<input type="checkbox"/> FOR REVIEW AND COMMENT	<input type="checkbox"/> _____	<input type="checkbox"/> PRINTS RETURNED AFTER LOAN TO US

~~Neil Thibert~~ - D.W.V.  
Neil Thibert

Signed Neil Watts  
Title Plan Review Analyst  
684-5040

SEATTLE ENGINEERING DEPARTMENT  
DRAINAGE CONTROL PLAN REVIEW FEE

Address of Project: 3801 E. Marginal Way SW

Project Number:       

Contact Person: Dan Keppen

Address: c/o Klein Consulting Engineers

P.O. Box 808, 1928 Council St

Forest Grove OR 97116

Phone Number: (503) 359-5956

Basic Review Fee: \$       

Design Review Fee: \$ 815

TOTAL FEE: \$ 815

Prepared by: Neil Watts

Date: July 31 1991

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The Drainage Detention Plan Review Fee must be paid prior to SED review of the  
Drainage Control Plan

Please Note: Your building permit plans will not be reviewed by SED until this  
fee is paid. The order of review is determined by the date that the fee is  
received.

This fee must be paid in Person at the following location:

MAKE CHECK PAYABLE TO:

SEATTLE CITY TREASURER

HAND DELIVERED CHECK TO:

SEATTLE ENGINEERING DEPARTMENT  
PERMIT COUNTER, ROOM 500  
SEATTLE MUNICIPAL BUILDING  
600 FOURTH AVENUE  
SEATTLE, WASHINGTON 98104

DRAINAGE CONTROL PLANS  
PLAN REVIEW SECTION - SEATTLE ENGINEERING DEPARTMENT  
CORRECTION SHEET FOR DEVELOPMENTS OVER 5,000 SQUARE FEET WITH DETENTION REQUIRED

TO: Dan Keppen c/o Klein Consulting Date: 7/31/91  
FROM: Neil Watts, SED Project No. \_\_\_\_\_  
PROJECT ADDRESS: 3801 E. Marginal Way SW

ALL ITEMS BELOW APPLY TO THIS PROJECT. CIRCLED ITEMS REQUIRE ATTENTION.

- ~~1)~~ Provide professional stamp and signature of a licensed civil engineer.
- 2) Provide north arrow, Legal Description, and Legal Owner.
- ~~3)~~ Specify scale.
- ~~4)~~ All elevations shall be on City of Seattle Datum, conversion factors are not acceptable. Identify City of Seattle benchmark used to establish site elevations by describing location of benchmark and referencing City of Seattle Fieldbook that establishes that benchmark.
- 5) The Flow Control Structure (FCS) must be specified as a Type 200B MH for a 30" diameter CMP entrance pipe or a Type 201B MH for a 36" diameter CMP entrance pipe. A reduction pipe cannot be used for 36" diameter detention pipe. A 42" diameter CMP through a 60" diameter CMP may use a 30" diameter CMP reduction pipe (2' minimum length).
- 6) CMP is allowable only for detention pipe 24" diameter and larger.
- ~~7)~~ The FCS must be installed with a ring and cover, a frame and grate is not allowed. Drainage may not enter the FCS through the top.
- ~~8)~~ Provide at least 2.0' between the overflow elevation and the rim elevation of the FCS, unless a detail is provided on the plan.
- ~~9)~~ The overflow elevation can be no lower than the top of the upstream end of the storage pipe.
- ~~10)~~ Storage pipes over 100' long must have a MH or junction box (with a solid lid) at the up stream end. Maximum distance between MH/junction box is 200'.
- ~~11)~~ Minimum orifice size is 3/4" diameter. Calculated diameters should be rounded down to the nearest 1/8" for diameters under 2" and rounded down to the nearest 1/4" for diameters over 2".
- ~~12)~~ Details of the FCS shall be shown on all plans, per the City of Seattle Engineering and Building department bulletin.
- ~~13)~~ Catch basins and pipe less than 18" in diameter shall not be used as detention volume.

14) Catch basins shall be City of Seattle Type 241 catch basins. The invert elevation shall be no lower than 3.0' below rim elevation.

15) CB to CB connections are not allowed, catch basins must be teed into a conveyance line.

16) Label rim and invert elevations on all drainage structures. Provide 2' (minimum) of cover over all pipes. Specify length, sizes and slopes of all pipes (1% minimum, 2% preferred). Slope on the outlet pipe of the FCS which connect to combined sewers shall be specified and called out on the plan (2% minimum).

17) Label the IE of both the FCS outlet and storm drain (or combined sewer) at the point of connection. Match centerlines.

18) Footing drains should enter a Type 241 CB before entering the storm drain system. Specify footing drains as PVC. *ASTM A2729*

19) Provide contour lines or spot elevations to determine how the site drains.

20) Do not use + elevations; elevations must be specific.

21) Catch basins and drains under cover, such as in a garage or carport, must be connected to the sanitary sewer not the detention system.

22) A single Type 241 catch basin can accept drainage from no more than 15,000 S.F. A 4' diameter CB can accept up to 30,000 S.F.

23) Storm drains connected to three or more downspout lines must be at least 6" in diameter.

24) Resubmit four copies of the Revised Drainage Control Plan to Plan Review Section, Room 606.

25) The following notes are site specific:

Manhole (Detail D-17) must be Type 200-B with solid lid.

Must have minimum of 2 feet of cover over detention pipe.

Provide the following pipe material specifications if applicable.

- 1) Storm drains shall be one or more of the following:
  - a) PVC - ASTM 3034 SDR 35 for pipe 12" in diameter and less.
  - b) CONC. - ASTM C-14 CL3 for pipe less than 12" in diameter.
  - c) CONC - ASTM C-76 CL IV for pipe 12" in diameter or greater.
- 2) Storm drains located under buildings must be either Ductile Iron ANSI A21.51 Class 50 or PVC Schedule 40.
- 3) CMP detention pipes 30" diameter and larger shall be 12 Gauge (24" diameter can be 14 Gauge), and specified as one of the following; Aluminum, Aluminized Steel or Galvanized Steel. Galvanized steel shall be treated with asphalt coating treatment 1.
- 4) Detention pipe located under buildings must be concrete ASTM C-76 CL IV.

Provide the following notes on the plan if applicable.

- 5) All downspout lines must be connected to the detention system.
- 6) When connecting the outlet from the FCS to an existing side sewer, include the following note with an arrow to the point of connection. "The contractor shall verify the location and elevation of existing side sewer prior to construction. If this elevation is greater than (design elevation) \_\_\_\_\_, contractor to connect to sewer (combined) located in (Name of Street) \_\_\_\_\_."

Provide the following notes on all plans.

- 7) The storm drainage system shall be constructed according to the approved plans which are on file in the Seattle Street Use Department records. Any deviation from the approved plans will require written approval from the City of Seattle Engineering Department.
- 8) A copy of these approved plans must be on the job site whenever construction is in progress.
- 9) All required storm water detention facilities must be constructed and in operation prior to any paving unless otherwise approved by the Seattle Engineering Department.

e/mvo9.1  
12-29-87:tt

**SMITH & MONROE & GRAY ENGINEERS, INC.**

PARK PLAZA WEST - SUITE 210  
10700 S.W. BEAVERTON HIGHWAY  
BEAVERTON, OREGON 97005  
PHONE 503 / 643-8598  
FAX 503 / 643-8610

CIVIL & STRUCTURAL ENGINEERS

MATERIAL HANDLING

August 5, 1991

8-168B

Rick Lowthian  
Seattle Engineering Department  
Seattle Municipal Building  
600 Fourth Avenue  
Seattle, Washington 98104

RE: ASH GROVE CEMENT WEST PROPOSED DETENTION FACILITY

Dear Rick:

This letter is in response the correction sheet prepared by Neil Watts and sent to Klein Consulting for the above referenced facility dated July 31, 1991. Four copies of revised plans are hereby submitted. The following responses address each item of the correction sheet:

- PAGE 1, ITEM 2) The north arrow is prominently shown on all plans; the Legal Description and Legal Owner is shown on the new drawing submitted number 8-169-010 Revision A.
- PAGE 1, ITEM 5) Drawing 8-169-19 has been revised to specify the Flow Control Structure (FCS) to be "Type 200B MH (per City of Seattle)".
- PAGE 1, ITEM 6) The inlet pipe to the detention pipe and the discharge pipe from the FCS to the lift station have been revised from CMP to PVC as required; see detail A/17.
- PAGE 2, ITEM 16) Two foot minimum cover is specified over all pipes; see revised section E/18.
- PAGE 2, ITEM 24) Four copies of Revised Drainage Control Plan are hereby submitted.
- PAGE 2, ITEM 25) Drawing 8-169-19 and detail D/17 have been revised to specify manhole "Type 200B MH (per City of Seattle)", with a solid lid. The minimum cover is specified as 2 feet over the detention pipe, see detail E/17.

AGC2H000272

Rick Lowthian  
Seattle Engineering Department  
Page 2

PAGE 3, ITEM 3)      The detention pipe was revised from 14 Gauge to 12 Gauge as required; see detail E/17. Galvanized steel and coatings are specified per City of Seattle; see note on drawing 8-169-17.

PAGE 3, ITEM 7)      The note has been added to drawing 8-169-17.

PAGE 3, ITEM 8)      The note has been added to drawing 8-169-17.

PAGE 3, ITEM 9)      The note has been added to drawing 8-169-17.

And in addition, the Drainage Control Plan Review Fee of \$815 is also submitted as required.

With these minor changes and the fee payment, we await your final approval soon.

Sincerely,



Stephen Rinella, P.E.

cc: Richard Cooke, Ash Grove Portland w drawings  
Ken Rone, Ash Grove Seattle w drawings  
Neil Watts, City of Seattle w/o drawings  
Neil Thibert, City of Seattle w/o drawings  
Dan Keppen, Klein Consulting w/ drawings